

Natural Communities of Louisiana



Brackish Marsh

Rarity Rank: S3S4/G4?

	1	2	3	4	5
State					
Global					
	imperiled		rare	secure	



Photo: Todd Baker

Synonyms: Needle Rush Marsh, Edge-Zone Marsh, Middle Estuary

Ecological Systems:

CES203.471 Mississippi Delta Salt and Brackish Tidal Marsh

CES203.468 Gulf Coast Chenier Plain Salt and Brackish Tidal Marsh

General Description:

- Usually found between salt marsh and intermediate marsh, although it may occasionally lie adjacent to the Gulf of Mexico
- Experiences irregular tidal flooding and is dominated by salt-tolerant grasses
- Small pools or ponds may be scattered throughout
- Plant diversity and soil organic matter content are higher in brackish marsh than in salt marsh
- Typically dominated by *Spartina patens* (wire grass)
- Two other major autotrophic groups in brackish marsh are epiphytic algae and benthic algae
- Vertebrate species population levels generally higher in brackish marsh compared to salt marsh
- Salinity averages about 8 ppt, and this community may be changed to another marsh types by shifts in salinity levels
- Acts as nursery areas for myriads of larval forms of shrimp, crabs, redfish, seatrout, menhaden, etc., and also as important waterfowl habitat
- Functions as a nitrogen and phosphorus sink, thereby improving the quality of water that passes through this ecosystem
- Can alleviate the effects of storms and flooding by acting as a buffer and providing storage for large amounts of water

Plant Community Associates

Common species include:

Spartina patens (wire grass)

Schoenoplectus olneyi (three-cornered grass)

Schoenoplectus robustus (salt marsh bulrush)

Paspalum vaginatum (seashore paspalum)

Bacopa monnieri (coastal water hyssop)

Spartina cynosuroides (big cordgrass)

Distichlis spicata (salt grass)

Ruppia maritima (widgeon grass)

Eleocharis parvula (dwarf spikeseed)

Juncus roemianus (black rush)

Spartina alterniflora (smooth cordgrass)

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Federally-listed plant & animal species:

Grus americana (whooping crane)

Pelecanus occidentalis (brown pelican)

Haliaeetus leucocephalus (bald eagle)

Endangered; G1; SH

Endangered (PS:E); G4; S2

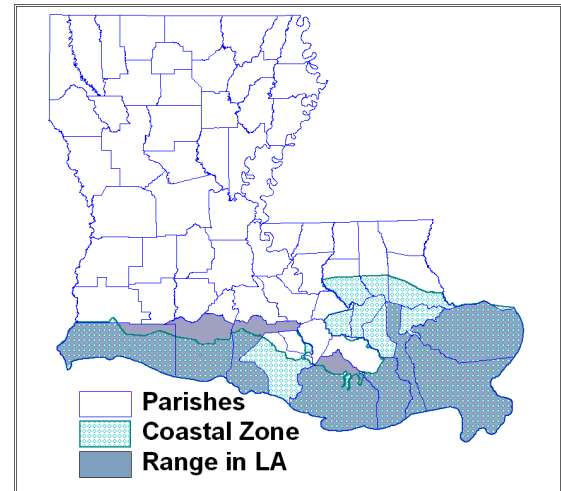
Bald & Golden Eagle Protection Act;
G4; S2N,S3B

Range:

Presettlement extent of brackish marsh is estimated to have been between 500,000 and 1,000,000 acres with 50 to 75 percent remaining today. At present the total acreage of brackish marsh appears to be increasing due to shifts in marsh salinity levels. However, stable, viable examples of brackish marsh are becoming rare in Louisiana.

LA River Basins:

Pearl, Pontchartrain, Mississippi, Barataria, Terrebonne, Vermilion-Teche, Mermentau, Calcasieu, Sabine



Threats:

- Shoreline erosion and subsidence
- Commercial and industrial development
- Construction of roads, pipelines or utilities
- Hydrological alterations (channelization and leveeing of waterways, canal dredging)
- Contamination by chemicals or industrial discharge
- Fire suppression
- Invasive exotic species

Beneficial Management Practices:

- Prevent conversion of existing natural communities to other land uses
- Allow natural fires to burn freely (if feasible) and establish regular burning regime on managed lands to improve habitat and food quality for wildlife
- Remove any invasive exotic plant species with use of spot herbicides or mechanical means